

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Currently Amended) ~~A device~~ An extracorporeal blood circuit comprising an auxiliary line having at least a first end communicating with said extracorporeal blood circuit and a second end communicating with a medical apparatus during operation, said auxiliary line being provided with at least one device for protecting said medical apparatus, said protecting device comprising:

a hollow body having at least three portions, in which:

a first end portion ~~has~~ having a first tubular connector, ~~destined to be connected with a fluid line which fluid line is during operation of the device connected to an extracorporeal circuit for transport of fluid in fluid~~ communication with said first end;

a second end portion, opposite ~~the~~ said first end portion ~~has~~ having a second tubular connector, in fluid communication with said first tubular connector by means of a cavity which is internal of said hollow body, and ~~destined to be connected to a fluid line is during operation of the device connected to a medical apparatus~~ said second tubular connector being in fluid communication with said second end; and

a third intermediate portion, ~~interpositioned~~ configured between said the first end portion and said the second end portion, ~~which~~ said third intermediate portion is coupled₁ at a first side thereof₁ to said first end

portion along at least a first union zone, and ~~which~~ said third intermediate portion is coupled, at a second side thereof, opposite to said ~~the~~ first side thereof, to said second end portion along at least a second union zone;
and

at least two filter membranes in which:

a first membrane, contained in said hollow body, defines, in said cavity, a first gas-permeable anti-contamination barrier, arranged transversally between said first end portion and said third intermediate portion; and
a second membrane, contained in said hollow body, defines, in said cavity, a second gas-permeable anti-contamination barrier, arranged transversally between said second end portion and said third intermediate portion.

2. (Currently Amended) The ~~device~~ circuit of claim 1, wherein said third intermediate portion is plate-shaped and has a central opening.

3. (Currently Amended) The ~~device~~ circuit of claim 1, wherein said third intermediate portion is made in a single piece.

4. (Currently Amended) The ~~device~~ circuit of claim 1, wherein said third intermediate portion is made of a rigid material.

5. (Currently Amended) The ~~device~~ circuit of claim 1, wherein said third intermediate portion is integrally ~~moulded~~ molded in a plastic material.

6. (Currently Amended) The ~~device~~ circuit of claim 1, wherein said first union zone and said second union zone are permanent coupling zones.

7. (Currently Amended) The ~~device~~ circuit of claim 1, wherein said first union zone and said second union zone are zones subjected to ultrasonic welding.

8. (Currently Amended) The ~~device~~ circuit of claim 1, wherein:
said first end ~~zone~~ portion exhibits an internal surface, which delimits said cavity and which faces said first membrane, from ~~which~~ said internal surface a first plurality of reliefs emerges, defining a first striker surface for said first membrane;

said second end portion exhibits an internal surface, which delimits said cavity and which faces said second membrane, from ~~which~~ said internal surface a second plurality of reliefs emerges, defining a first striker surface for said second membrane;

said third intermediate portion exhibits two internal surfaces which delimit said cavity;

a third plurality of reliefs emerges from a first of said two internal surfaces, ~~which~~ said first internal surface faces said first membrane, ~~which~~ and said third plurality of reliefs defines a second striker surface for said first membrane; and

a fourth plurality of reliefs emerges from a second of said two internal surfaces, ~~which~~ said second internal surface ~~faces~~ facing the second membrane, ~~which~~ and said fourth plurality of reliefs defines a second striker surface for said second membrane.

9. (Currently Amended) The ~~device~~ circuit of claim 8, wherein said first, second, third, and fourth pluralities of reliefs are ribs arranged tangentially, with reference to a longitudinal axis of the said hollow body, said ribs defining a plurality of tangential channels, communicating with a central zone of said cavity, ~~by means of~~ through one or more radial channels defined by said first, second, third, and fourth pluralities of reliefs.

10. (Currently Amended) The ~~device~~ circuit of claim 1, wherein said first union zone and said second union zone are annular ~~and preferably coaxial to one another.~~

11. (Currently Amended) The ~~device~~ circuit of claim 1, wherein said first membrane and said second membrane are at least partially facing one another.

12. (Currently Amended) The ~~device~~ circuit of claim 1, comprising at least a first annular seal zone and a second annular seal zone, located at a perimeter edge of ~~the~~ said first membrane and, respectively, at a perimeter edge of ~~the~~ said second membrane.

13. (Currently Amended) The ~~device~~ circuit of claim 12, wherein said first annular union zone and said second annular union zone exhibit radial dimensions ~~of about a same size and~~ of a greater size than radial dimensions of ~~the~~ said first annular seal zone and a said second annular seal zone.

14. (Currently Amended) The ~~device~~ circuit of claim 1, wherein said first membrane and said second membrane each exhibit at least one straight perimeter side.

15. (Currently Amended) The ~~device~~ circuit of claim 14, wherein said first membrane and said second membrane each exhibit at least a first pair of perimeter sides which are opposite and parallel to one another.

16. (Currently Amended) The ~~device~~ circuit of claim 15, wherein said first membrane and said second membrane each exhibit at least a second pair of perimeter sides which are opposite and a parallel to one another.

17. (Currently Amended) The ~~device~~ circuit of claim 16, wherein said first membrane and said second membrane each exhibit a rectangular shape.

18. (Currently Amended) The device circuit of claim 12, wherein said first annular seal zone and said second annular seal zone each ~~exhibit~~ include at least two joined adjacent sides which ~~exhibit~~ include a rounded corner.

19. (Currently Amended) The device circuit of claim 18, wherein said first annular seal zone and said second annular seal zone each ~~exhibit~~ include a rectangular shape, with rounded corners.

20. (Currently Amended) The circuit of claim 1, wherein ~~A device for protecting medical apparatus, in particular from contamination by infectious agents, comprising:~~

~~a hollow body having at least two portions, in which:~~

~~a first portion has a first tubular connector, destined to be connected with a fluid line which fluid line is during operation of the device connected to an extracorporeal circuit for transport of fluid;~~

~~a second portion has a second tubular connector, in fluid communication with said first tubular connector by means of a cavity which is internal of said hollow body, and destined to be connected to a fluid line which fluid line is during operation of the device connected to a medical apparatus, said second portion being solidly connected to said first portion;~~

~~at least one membrane, contained in said hollow body and defining in said cavity, a gas-permeable anti-contamination barrier, arranged transversally between said first tubular connector and said second tubular connector, said at least one first membrane exhibiting exhibits a first perimeter edge having a predetermined shape; a maximum~~

possible circle which can be drawn inside the said first perimeter edge having an area which is smaller than an area of a surface of ~~the at least one~~ said first membrane.

21. (Currently Amended) The ~~device circuit~~ of claim 20, wherein said ~~at least one first~~ membrane has at least one perimeter side having a degree diameter of curvature which is greater than a lateral dimension of ~~the at least one~~ said first membrane, ~~the lateral dimension being considered in a perpendicular direction to~~ said perimeter side.

22-27. (Canceled)

28. (Currently Amended) The ~~device circuit~~ of claim 1 20, wherein ~~at least one of said first end portion and said second portion~~ exhibits a first flanged part, to which said ~~at least one filter~~ first membrane is associated, ~~which~~ said first flanged part exhibits a shape which is delimited by a first perimeter edge; a maximum diameter circle which can be drawn within said first perimeter edge having an area which is smaller than a surface area of said first flanged part.

29-38. (Canceled)

39. (New) The circuit of claim 10, wherein said first union zone and said second union zone are coaxial to one another.

40. (New) The circuit of claim 1, wherein said second membrane exhibits a second perimeter edge having a predetermined shape, a maximum possible circle which can be drawn inside said second perimeter edge having an area which is smaller than an area of a surface of said second membrane.

41. (New) The circuit of claim 40, wherein said second membrane has at least one perimeter side having a diameter of curvature which is greater than a lateral

dimension of said second membrane, the lateral dimension being considered in a perpendicular direction to said perimeter side.

42. (New) The circuit of claim 1, wherein said second end portion exhibits a second flanged part, to which said second membrane is associated, which second flanged part exhibits a shape which is delimited by a second perimeter edge, a maximum diameter circle which can be drawn within said second perimeter edge having an area which is smaller than a surface area of said second flanged part.

43. (New) The circuit of claim 1, wherein said third intermediate portion exhibits a third flanged part, to which said first membrane and said second membrane are associated, which third flanged part exhibits a shape which is delimited by a third perimeter edge, a maximum diameter circle which can be drawn within said third perimeter edge having an area which is smaller than a surface area of said third flanged part.

44. (New) The circuit of claim 1, wherein said at least first end opens into a container for a fluid, which container is part of said extracorporeal blood circuit.

45. (New) The circuit of claim 1, wherein said second end is configured to be connected to an operator unit of said medical apparatus.

46. (New) The circuit of claim 1, wherein said second end is configured to be connected to an apparatus for extracorporeal treatment of blood.